Complete Summary

GUIDELINE TITLE

Specific management of IgA nephropathy: role of tonsillectomy.

BIBLIOGRAPHIC SOURCE(S)

Thomas M. Specific management of IgA nephropathy: role of tonsillectomy. Nephrology 2006 Apr;11(S1):S146-8.

Thomas M. Specific management of IgA nephropathy: role of tonsillectomy. Westmead NSW (Australia): CARI - Caring for Australasians with Renal Impairment; 2005 Sep. 5 p. [11 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Immunoglobulin A (IgA) nephropathy
- Renal impairment
- Chronic kidney disease
- End-stage kidney disease

GUIDELINE CATEGORY

Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Nephrology
Pediatrics

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To evaluate the available clinical evidence pertaining to the impact of tonsillectomy on renal functional decline in immunoglobulin A (IgA) nephropathy

TARGET POPULATION

Adults and children with immunoglobulin A (IgA) nephropathy

Note: This guideline does not address the role of tonsillectomy in those patients with appropriate ear, nose, and throat (ENT) indications.

INTERVENTIONS AND PRACTICES CONSIDERED

Tonsillectomy (considered but not recommended)

MAJOR OUTCOMES CONSIDERED

- Reduction in proteinuria
- Reduction in hematuria
- Reduction in serum immunoglobulin A (IgA) concentration
- Renal function decline

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Databases searched: MeSH terms and text words for IgA nephropathy were combined with MeSH terms and text words for tonsillectomy. This search was carried out in Medline (1966 to September Week 2, 2004). The Cochrane Renal Group Trials Register was also searched for trials of IgA nephropathy not indexed in Medline.

Date of searches: 17 September 2004.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I: Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

Level II: Evidence obtained from at least one properly designed RCT

Level III: Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

Level IV: Evidence obtained from case series, either post-test or pretest/post-test

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Recommendations of Others. Recommendations regarding the role of tonsillectomy in the management of immunoglobulin A (IgA) nephropathy from the following groups were discussed: Kidney Disease Outcomes Quality Initiative, UK Renal Association, Canadian Society of Nephrology, European Best Practice Guidelines, and International Guidelines.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the levels of evidence (I–IV) can be found at the end of the "Major Recommendations" field.

Guidelines

No recommendation possible based on Level I or II evidence

Suggestions for Clinical Care

(Suggestions are based on Level III and IV evidence)

Numerous retrospective cohort studies and case reports have suggested that tonsillectomy may reduce proteinuria and serum total immunoglobulin A (IgA) concentration, decrease episodes of macroscopic haematuria and slow progression to end-stage kidney disease (ESKD) in patients with tonsillitis. In retrospective series, tonsillectomy has been associated with improved renal outcome in patients with IgA nephropathy, over and above standard therapy. However, these results have not been consistent in all studies. Moreover, these results are confounded by indication making the true role of tonsillectomy difficult to interpret.

- One study examined renal outcomes in 237 patients with IgA nephropathy (aged 31 ± 14 years, mean ± SD) who had been followed-up for at least 6 months (follow-up periods, 62.3 ± 45.5 months). On univariate analysis, tonsillectomy was the only significant treatment that contributes to the maintenance of normal renal function. In addition, urinary abnormalities disappeared at a significantly higher frequency when patients were treated by tonsillectomy. However, the severity of baseline renal disease was not equivalent in all groups and the protective effect of tonsillectomy was eliminated after adjusting for other baseline variables.

- Another study retrospectively reviewed data on renal outcome in 55 patients with IgA nephropathy. In this study, there was no significant correlation between tonsillectomy and ESKD after 3.4 ± 4 years of follow-up, when adjusting for baseline risk factors.
- Another study retrospectively reviewed data from over 15 years in 118 patients with idiopathic IgA nephropathy, including 48 patients who had undergone tonsillectomy and 70 who had not. After adjusting for baseline risk factors, only five (10.4%) of patients (n = 48) who had undergone tonsillectomy entered dialysis, whereas 18 (25.7%) of 70 patients who had not undergone tonsillectomy required dialysis (P = 0.04). Cox regression analysis showed that the relative risk for terminal renal failure in patients following tonsillectomy was lower compared to control patients (hazard ratio 0.22, 95%CI: 0.06 to 0.76, P = 0.0164).
- Another study reviewed 50 patients with IgA nephropathy and chronic tonsillitis, including 35 patients with and 15 without tonsillectomy. In patients with a serum creatinine level of < 1.4 mg/dL, renal function remained normal in all subjects with tonsillectomy but worsened in 3 of 13 patients without tonsillectomy. There was no effect seen in patients with a serum creatinine level of > 1.4 mg/dL at the time of renal biopsy. They proposed that tonsillectomy might have a role for patients with IgA nephropathy complicated by tonsillitis when the operation was performed before deterioration of renal function.
- Another study followed 75 patients with biopsy-proven IgA nephropathy for an average of 12.2 years, including 35 patients who had undergone tonsillectomy. Although the level of microhaematuria 6 months after tonsillectomy was similar to before the procedure, tonsillectomy stopped gross haematuria appearing in the acute exacerbation of the disease in more than two-thirds of patients. ESKD was detected only in 4 of 35 patients 10 years after tonsillectomy, compared to 8 of 40 patients from a non-tonsillectomised control group with IgA nephropathy.
- Another study conducted a retrospective review of the renal outcome in 329 patients with IgA nephropathy, with an observation period longer than 36 months (82.3 ± 38.2 months). Their results showed that there were no significant differences between the tonsillectomy and nontonsillectomy groups regarding the incidence of progressive renal functional loss (defined as a 50% increase in baseline serum creatinine). However, tonsillectomy had a significant impact on clinical remission by multivariate Cox regression analysis.
- Another study retrospectively reviewed 70 patients with IgA nephropathy and renal impairment (serum creatinine > 1.5 mg/dL). Steroid pulse with tonsillectomy, and conventional steroid and supportive therapy were performed in 30, 25 and 15 patients, respectively. The incidence of ESKD in the patients treated by steroid pulse with tonsillectomy was significantly lower than the incidences in the patients treated by conventional steroid and supportive therapy at a baseline creatinine level of 1.5 to 2 mg/dL, but no statistical difference was observed at a level of > 2 mg/dL. Like the findings of a previous study, the authors concluded that steroid pulse therapy combined with tonsillectomy may be more effective than conventional steroid therapy in patients without moderate to severe renal impairment.
- Another study performed a 10-year retrospective case-control study of 71 patients with IgA nephropathy to evaluate the long-term effects and prognostic factors associated with tonsillectomy. A total of 41 patients who had undergone tonsillectomy were compared with 30 patients who had not.

After over 12 years of follow-up, the clinical remission rate was 24% in the tonsillectomy group and 13.3% in those not receiving tonsillectomy. Similarly, renal survival was higher in patients who had undergone tonsillectomy.

- Another study reviewed long-term renal survival in 46 patients who had undergone tonsillectomy, and 74 patients with IgA nephropathy who had not. Five (10.9%) of the tonsillectomy group reached ESKD whereas 19 (25.8%) of the non-tonsillectomy group did.

In summary, tonsillectomy could reduce proteinuria and haematuria in those patients without moderate to severe renal impairment. These studies are retrospective and potentially confounded by indication, making the clinical significance of this intervention difficult to interpret.

Definitions:

Levels of Evidence

Level I: Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

Level II: Evidence obtained from at least one properly designed RCT

Level III: Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

Level IV: Evidence obtained from case series, either post-test or pretest/post-test

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate management of patients with immunoglobulin A (IgA) nephropathy

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2005 Sep

GUIDELINE DEVELOPER(S)

Caring for Australasians with Renal Impairment - Disease Specific Society

SOURCE(S) OF FUNDING

Industry-sponsored funding administered through Kidney Health Australia

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Author: Merlin Thomas

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

All guideline writers are required to fill out a declaration of conflict of interest.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Caring for Australasians with Renal Impairment Web site.

Print copies: Available from Caring for Australasians with Renal Impairment, Locked Bag 4001, Centre for Kidney Research, Westmead NSW, Australia 2145

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- The CARI guidelines. A guide for writers. Caring for Australasians with Renal Impairment. 2006 May. 6 p.

Electronic copies: Available from the Caring for Australasians with Renal Impairment (CARI) Web site.

PATIENT RESOURCES

None available

NGC STATUS

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